



# Community Services Advisory Commission

November 15, 2016

## Minutes

### Commission Members:

**Present:** Ann Bohman, Thomas Strup, Mindy Carr  
Marilyn Baker, Stephanie Hall,  
Christine Gawronski (joined at 6:35 p.m.)  
Vladmir Kapustin – attended via speaker phone

**Absent:** None

### Staff Members Present:

Michelle Crandall, Asst. City Manager  
Matt Earman, Parks & Recreation Director  
Megan O’Callaghan, Public Works Director  
Beth Lozier, Operations Administrator, Public Works  
Lindsey Weisenauer, Sr. Public Information Officer  
Tami Moore, Recorder

**Guests:** Residents: Katelyn Neil, 8411 Greenside Drive; Ashlie Mohar, 7220 Hopewell Street  
Franklin County Public Health (FCPH) - Charlie Broschart, Niki Lemin, Evan Jones, Mitzi Kline  
Vector Disease Control, Inc. (VDCI) – Cristina Flores, Dr. Dan Markowski

### I. Call to Order

Ms. Bohman established that a quorum was present and called the meeting to order at 6:30 p.m. CSAC member Vladimir Kapustin was out of town and attended the meeting via speaker phone. Ms. Jennifer Readler, Dublin legal counsel, stated Mr. Kapustin could be counted present as far as attendance, but he could not participate in the meeting.

### II. Public Comments on Items Not on the Agenda

None.

### III. Approval of Meeting Minutes

Minutes from the October 11, 2016 CSAC meeting had been previously distributed via email for review. Ms. Bohman asked if there were any changes to the minutes. There being none, Mr. Strup moved for approval, seconded by Ms. Carr. All in favor, the minutes were approved.

### IV. Approval of 2017 CSAC Meeting Dates

The proposed 2017 CSAC meeting schedule had been previously distributed via email for review. The meeting schedule follows the standard second Tuesday of the month routine with the Commission recessing in July and August unless otherwise scheduled. Meetings are held at the Municipal Building, Council Chambers at 6:30 p.m. Commission members made no adjustments to the schedule.

**V. Mosquito Management**

Ms. Megan O'Callaghan, Director of Public Works, the department at the City of Dublin that oversees the Mosquito Management contract, greeted the CSAC members. She noted that this topic was also discussed at the October 11, 2016 CSAC meeting and provided a recap of that content. The topic of mosquito management and specifically "adulticiding" or spraying was discussed at the City Council meeting on September 26, 2016. City Council referred the matter to CSAC for consideration and a recommendation on renewing the City's mosquito management contract with Franklin County Public Health / Vector Disease Control, Inc. At the October 11, 2016 CSAC meeting, staff introduced the topic by providing an overview of Dublin's Mosquito Management Program with the goal of providing a foundation of understanding of the current program, and members were also provided some reading materials for more in-depth research prior to this meeting. Commission members specifically requested additional information prior to this meeting which was emailed to all (documents attached).

- Follow-up Memo to CSAC from Megan O'Callaghan and Beth Lozier dated November 10, 2016
- Mosquito Management Chemicals
- Residue studies of ulv\_wb Saginaw MI
- Mosquito Spraying Zone Map

Ms. O'Callaghan noted that representatives from both Franklin County Public Health (FCPH), who the City contracts with for the Mosquito Management Program, and Vector Disease Control, Inc., the vendor they contract with to perform the mosquito management services for the City Dublin, were both present for a more detailed discussion about the program. Also present was Beth Lozier, Operations Administrator for the City of Dublin, who oversees the program and has a lot of history and knowledge on this topic.

Ms. O'Callaghan began her PowerPoint presentation, included herein, stating that she would provide a recap of the content discussed at the October 11, 2016 CSAC meeting, a review of the documents noted above that had been emailed to CSAC, and an introduction to the representatives from FCPH and VDCI.



# INTEGRATED MOSQUITO MANAGEMENT PROGRAM OVERVIEW

PUBLIC WORKS

November 15, 2016



EVERYTHING GROWS HERE.



## Agenda

1. Recap of October 11, 2016 meeting
2. Follow-up Information:
  - a) Benchmarking - communities that do not spray
  - b) Jurisdictions that do not participate in the FCPH Program
  - c) Chemical information
  - d) Map of the spray zone areas
  - e) Positive West Nile Virus (WNV) testing data
  - f) 2016 Spray dates
3. Franklin County Public Health



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## Recap

- Dublin has partnered with Franklin County Public Health (FCPH) for Integrated Mosquito Management since 2008
- FCPH oversees and directs the program, and Vector Disease Control International (VDCI) carries out the day-to-day activities and operation
- 33 out of 40 jurisdictions that FCPH serves participate in the program
- Contract term is 2014-2016 with an option of extending for two one-year terms with a 1.5% price increase for the extension period.
- Current contract cost is \$39,714.50 per year.



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## Franklin County Integrated Mosquito Management (IMM) Program Provides...

1. Larvae and Pupae Control
2. Storm Drain and Catch Basin Treatments
3. Adult Mosquito Surveillance
4. Adult Mosquito Control
5. Record Keeping/Reporting
6. Service Requests and Complaint Investigation
7. Public Education
8. Subject Matter Experts and Trained/Licensed Applicators



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## Benchmarking - Communities that Do Not Spray

- **Shaker Heights**
  - They use an extended release tablet for larviciding in every catch basin and then on a complaint-driven basis.
  - They treat 3,000 catch basins one time per year.
- **Hamilton County**
  - They have increased trapping and testing due to West Nile Virus.
  - Their larviciding program is primarily complaint based due to mosquitos with West Nile Virus.
  - Residents do not want them to spray and because of costs they choose not to spray. They have saved a lot of money.
  - Spraying does occur when pools of West Nile Virus and human cases occur. They will treat within one-half mile of a particular case of West Nile Virus.



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## Benchmarking - Communities that Do Not Spray

- **South Euclid**
  - They do not spray due to chemical usage.
  - They treat approximately 811 catch basins with pellet larvicide which is conducted by the Cuyahoga County Board of Health.
- **Washington DC**
  - Their program consists of mosquito surveillance including trapping and testing, mitigation which includes the use of larvicidal agents and educational outreach and communications.



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## Jurisdictions that do not Participate in the FCPH Program

### **Townships:**

Blendon - spray only program, no larviciding or trapping  
Jackson - spray only program, no larviciding or trapping  
Truro - no mosquito program

### **City:**

Pickerington - spray only program, no larviciding or trapping

### **Villages:**

Brice - no mosquito program  
Harrisburg - no mosquito program  
Minerva Park - Blendon Township sprays their community, no  
larviciding or trapping



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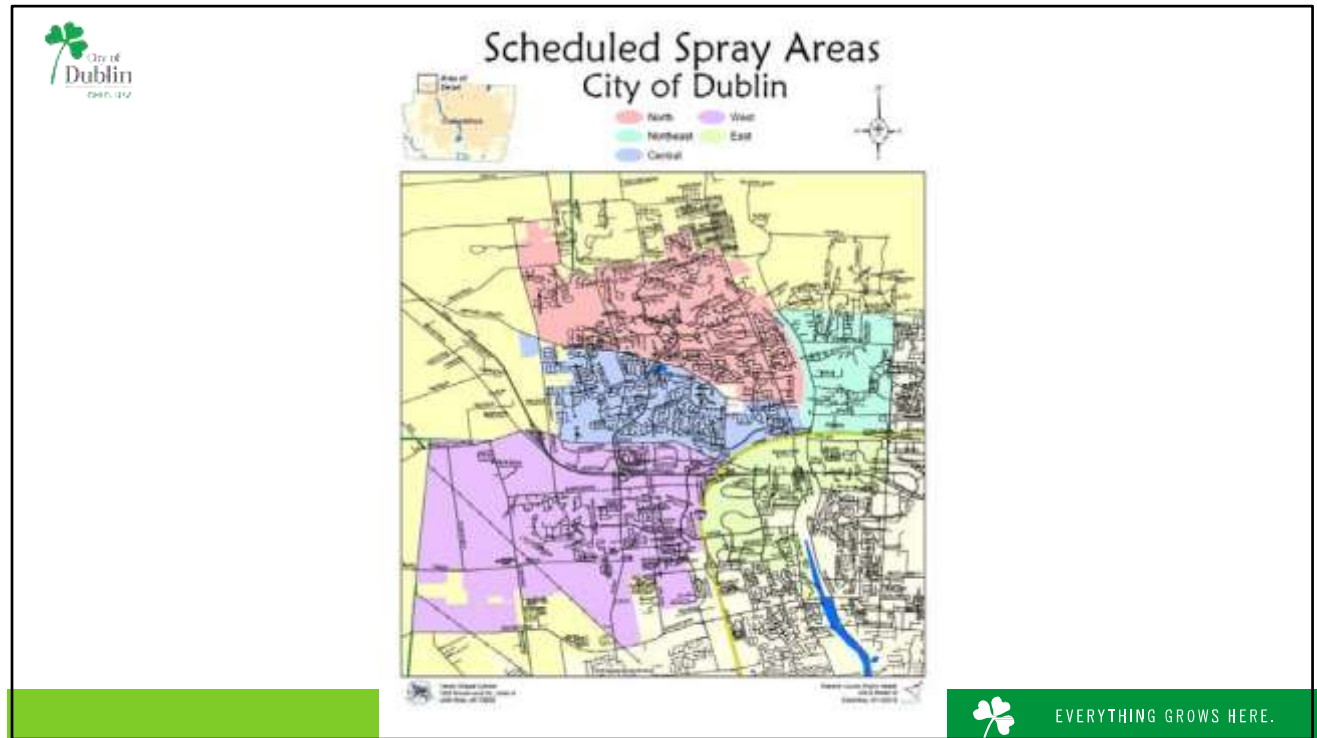


## Chemical Information

- PERMANONE® READY-TO-USE INSECTICIDE
- SUSPEND® SC INSECTICIDE



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### Positive West Nile Virus (WNV) Testing Data

2016		2015		2014		2013	
Dublin Central	4	Dublin Central	1	Dublin Central	1	Dublin Central	1
Dublin East	4	Dublin East	1	Dublin East	1	Dublin East	0
Dublin North	0	Dublin North	1	Dublin North	1	Dublin North	0
Dublin Northeast	0	Dublin Northeast	2	Dublin Northeast	1	Dublin Northeast	1
Dublin West	2	Dublin West	1	Dublin West	1	Dublin West	4

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## 2016 Spray Dates

7/28/16 - Central Area  
8/18/16 - Central and East Areas  
8/29/16 - Central and East Areas  
9/01/16 - West Area  
9/12/16 - Central Area  
9/19/16 - West Area  
(East area had WNV too but did not get sprayed)  
9/22/16 - East Area



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## Franklin County Public Health Representatives

Charlie Broschart, RS Environmental Health Division Manager

Niki Lemin, Environmental Health Director

Mitzi Kline, Communications Director

Dr. Dan Markowski, VDCI

Cristina Flores, VDCI



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Ms. O'Callaghan noted that City staff work closely with representatives from FCPH and contracts with them for a number of services, the mosquito program being just one of them. Their mission is to improve the health of their communities by preventing disease; promoting healthy living and protecting against public health threats through public education, policies, programs and partnerships. Representatives from VDCI, the vendor who implements the program for FCPH and are recognized as experts countywide, were also present.

Ms. O'Callaghan introduced Mr. Charlie Broschart, FCPH Environmental Health Division Manager. Mr. Broschart stated that he oversees the Mosquito Management Program for Franklin County and all the jurisdictions they serve. He introduced the other representatives present from both FCPH and VDCI.

Mr. Broschart provided a PowerPoint Presentation providing an overview of FCPH's Integrated Mosquito Management Program:

### **1 City of Dublin**

#### **Community Services Advisory Commission November 15, 2016**

Integrated Mosquito Control and Management Program

### **2 Franklin County Public Health's Integrated Mosquito Management Program**

Outline of FCPH/Dublin IMM program

- Larviciding
- Catch basin treatments
- Service requests
- Surveillance (gravid traps, CDC light traps and BG Sentinel traps)
- Adulticide (ULV spray and barrier treatments)
- Public education and outreach
- Data analysis and GIS

### **3 All IPM Components Compliment and Work Together**

- CDC West Nile Virus Guidelines for Surveillance, Prevention, and Control
- A Plan for Surveillance, Prevention, and Control of West Nile Virus and Other Arboviruses in Ohio

### **4 Centers for Disease Control and Prevention Division of Vector-Borne Diseases 4th Revision June 14, 2013**

#### **West Nile Virus in the United States: Guidelines for Surveillance, Prevention, and Control**

- Larval Mosquito Control The objective of the larval mosquito control component of an IVM program is to manage mosquito populations before they emerge as adults. This can be an efficient method of managing mosquito populations if the mosquito breeding sites are accessible. However larval control may not attain the levels of mosquito population reduction needed to maintain WNV risk at low levels, and must be accompanied by measures to control the adult mosquito populations as well. In outbreak situations, larval control complements adult mosquito control measures by preventing new vector mosquitoes from being produced. However, larval control alone is not able to stop WNV outbreaks once virus amplification has reached levels causing human infections. (page 35)

### **5 Centers for Disease Control and Prevention Division of Vector-Borne Diseases 4th Revision June 14, 2013**

#### **West Nile Virus in the United States: Guidelines for Surveillance, Prevention, and Control**

- **Adult Mosquito Control:** Source reduction and larvicide treatments may be inadequate to maintain vector populations at levels sufficiently low to limit virus amplification. The objective of the adult mosquito control component of an IVM program is to complement the larval management program by reducing the abundance of adult mosquitoes in an area, thereby reducing the number of eggs laid in breeding sites. Adult mosquito control is also intended to reduce the abundance of biting, infected adult mosquitoes in order to prevent them from transmitting WNV to humans and to break the mosquito-bird transmission cycle. In situations where vector abundance is increasing above acceptable levels, targeted adulticide applications using pesticides registered by EPA for this purpose can assist in maintaining vector abundance below threshold levels. (page 35-36)
- **Vector Management in Public Health Emergencies:** Delaying adulticide applications until numerous human cases occur negates the value and purpose of the surveillance system. Timely application of adulticides interrupts WNV transmission and prevents human cases (Carney et al. 2005). (page 38)

## **6 A Plan for Surveillance, Prevention, and Control of West Nile Virus and Other Arboviruses in Ohio**

### **Recommendations of the Ohio Arbovirus Task Force January 2014**

- Larval and pupal mosquito control will reduce mosquito populations before they emerge as adults. Efficacy of larvicides should be monitored to ensure control. NOTE: Larval control alone is not enough to prevent a disease outbreak and should be used to complement, but not replace, control of adult mosquito populations.
- Adult mosquito control will reduce the abundance of infected biting adult mosquitoes below threshold levels in order to prevent human cases and break the enzootic transmission cycle. Efficacy of adulticides should be monitored to ensure control. NOTE: Adult control programs must use pesticides registered by US EPA for this purpose. (page 11)

## **7 Adulticide Safety, Human Risk and the Environment**

- We use U.S. EPA registered pesticides only
- We apply strictly according to the label
- We apply in the evening during peak mosquito activity
- We use ULV machines that are calibrated and feature:
  - Variable flow
  - GPS data collection with sprayer on/off recognition
- Permanone RTU
  - Permethrin 3.9%
  - Piperonyl Butoxide 8.48%
  - Typically apply just under the mid-label rate
- 0.0035 lbs. of permethrin per acre
- Applied at a droplet size of less than 30 microns
  - Example: human red blood cell is about 5 microns across. A human hair is about 75 microns across

## **8 Centers for Disease Control and Prevention Division of Vector-Borne Diseases 4th Revision June 14, 2013**

### **West Nile Virus in the United States: Guidelines for Surveillance, Prevention, and Control**

- **Risk and Safety of Vector Control Pesticides and Practices:** Insecticides to control larval and adult mosquitoes are registered specifically for that use by the U.S. Environmental Protection Agency (EPA). Instructions provided on the product labels prescribe the required application and use parameters, and must be carefully followed. Properly applied, these products do not negatively affect human health or the environment. Research has

demonstrated that ULV application of mosquito control adulticides did not produce detectable exposure or increases in asthma events in persons living in treated areas (Karpati et al. 2004, Currier et al. 2005, Duprey et al. 2008). The risks from WNV demonstrably exceed the risks from mosquito control practices (Davis and Peterson 2008, Macedo et al. 2010, Peterson et al. 2006). (page 36)

## **9 US EPA: Controlling Adult Mosquitoes**

<https://www.epa.gov/mosquitocontrol/controlling-adult-mosquitoes>

- Communities seek to control adult mosquitoes to combat an outbreak of mosquito-borne disease or a very heavy, nuisance infestation of mosquitoes. The pesticides we register for this use are known as adulticides. They are applied either by aircraft or on the ground employing truck-mounted sprayers. State and local agencies commonly use the organophosphate insecticides malathion and naled and the synthetic pyrethroid insecticides prallethrin, etofenprox, pyrethrins, permethrin, resmethrin and sumithrin for adult mosquito control.
- Mosquito adulticides are applied as ultra-low volume (ULV) sprays. ULV sprayers dispense very fine aerosol droplets that stay aloft and kill flying mosquitoes on contact. ULV applications involve small quantities of pesticide active ingredient in relation to the size of the area treated, typically less than 3 ounces per acre, which minimizes exposure and risks to people and the environment.
- Adulticides can be used for public health mosquito control programs without posing risks of concern to the general population or to the environment when applied according to the pesticide label. The following fact sheets provide more information on pesticides commonly used in public health mosquito control programs.

## **10 Permethrin, Resmethrin, d-Phenothrin (Sumithrin®): Synthetic Pyrethroids For Mosquito Control**

<https://www.epa.gov/mosquitocontrol/permethrin-resmethrin-d-phenothrin-sumithrinr-synthetic-pyrethroids-mosquito-control>

Pyrethroids are synthetic chemical insecticides that act in a similar manner to pyrethrins, which are derived from chrysanthemum flowers. Pyrethroids are widely used for controlling various insects. Permethrin, resmethrin, and d-phenothrin (Sumithrin®) are synthetic pyrethroids commonly used in mosquito control programs to kill adult mosquitoes.

- Permethrin has been registered by the EPA since 1979. It is currently registered and sold in a number of products such as residential indoor and outdoor insect foggers and sprays, treated clothing, flea products for dogs, termite treatments, agricultural and livestock products, and mosquito abatement products. It is also regulated by the Food and Drug Administration as a treatment of head lice and scabies. Permethrin is the most widely used mosquito adulticide in the U.S. and is used to treat 9 to 10 million acres annually (out of 32- 39 million acres treated with a mosquito adulticide). Permethrin's widespread use can be attributed to its low cost, high effectiveness, low incidence of pest resistance, and broad labeling.

## **11 Permethrin Product Examples and Dosage**

K-9 Advantix II

11 -20 lbs. dog

.03 ounces of 44% permethrin

RID lice treatment

- 4-6 ounces for medium hair length
- .33% pyrethrum

Lawn treatments

- Turf: 1.5 ounces per 1000 sq. ft. (0.023 acres)
- 10% permethrin

## **12 Permethrin, Resmethrin, d-Phenothrin (Sumithrin®): Synthetic Pyrethroids For Mosquito Control**

<https://www.epa.gov/mosquitocontrol/permethrin-resmethrin-d-phenothrin-sumithrinr-synthetic-pyrethroids-mosquito-control>

#### How are Synthetic Pyrethroids Used in Adult Mosquito Control?

- Most pyrethroid mosquito control products can be applied only by public health officials and trained personnel of mosquito control districts. Mosquito control professionals apply pyrethroids as an ultra low volume (ULV) spray. ULV sprayers dispense very fine aerosol droplets that stay aloft and kill adult mosquitoes on contact. Pyrethroids used in mosquito control are typically mixed with a synergist compound, such as piperonyl butoxide, which enhances the effectiveness of the active ingredient. The product is often diluted in water or oil and applied at rates less than 1/100th of a pound of active ingredient or less than 4 fluid ounces of mixed formulation per acre.

#### **13 Permethrin, Resmethrin, d-Phenothrin (Sumithrin®): Synthetic Pyrethroids For Mosquito Control** <https://www.epa.gov/mosquitocontrol/permethrin-resmethrin-d-phenothrin-sumithrinr-synthetic-pyrethroids-mosquito-control>

##### Do Pyrethroids Pose Risks to Human Health?

- We have conducted human health risk assessments for all labeled uses of pyrethroids. Based on the results of these assessments and any required label changes, pyrethroids can be used for public health mosquito control programs without posing unreasonable risks to human health when applied according to the label. At high exposure levels, such as those resulting from accidents or spills, pyrethroids can affect the nervous system.

#### **14 Permethrin, Resmethrin, d-Phenothrin (Sumithrin®): Synthetic Pyrethroids For Mosquito Control** <https://www.epa.gov/mosquitocontrol/permethrin-resmethrin-d-phenothrin-sumithrinr-synthetic-pyrethroids-mosquito-control>

##### Do Pyrethroids Pose Risks to Wildlife or the Environment?

- When applied according to label directions, pyrethroids used in mosquito control programs do not pose unreasonable risks to wildlife or the environment. Pyrethroids are low in toxicity to mammals and are practically nontoxic to birds. However, pyrethroids are toxic to fish and to bees. Products for uses other than mosquito control may be subject to buffer zones to protect water bodies. There also is language on product labels to reduce risks to pollinators. Always read the product label and follow its directions carefully when using any pesticide.

#### **15 Permethrin, Resmethrin, d-Phenothrin (Sumithrin®): Synthetic Pyrethroids For Mosquito Control**

<https://www.epa.gov/mosquitocontrol/permethrin-resmethrin-d-phenothrin-sumithrinr-synthetic-pyrethroids-mosquito-control>

##### What is The Current Regulatory Status of Pyrethroids?

- We are currently reevaluating all pyrethrins, pyrethroids and synergists through registration review. Registration review is our program for systematically reviewing all registered pesticides every 15 years to make sure that every pesticide can still perform its intended function without unreasonable adverse effects on human health or the environment.
- As a result of the Food Quality Protection Act, EPA must consider the cumulative risks of pesticides that, like the pyrethroids and pyrethrins, share a common mechanism of toxicity. In November 2011, we completed a cumulative risk assessment for the pyrethroids/pyrethrins and identified no cumulative risks of concern. This assessment is available from Regulations.gov, [docket EPA-HQ-OPP-2011-0746](https://www.regulations.gov/docket/EPA-HQ-OPP-2011-0746).

#### **16 Pyrethrins and Pyrethroids**

<https://www.epa.gov/ingredients-used-pesticide-products/pyrethrins-and-pyrethroids>

- Allergy and Asthma Assessment - In response to concerns expressed in a July 2008 Center for Public Integrity (CPI) journal article, EPA expedited its most recent review of available animal and human studies and human incident data to determine whether a clear association exists between exposure to pyrethrins and pyrethroid products and asthma and allergy effects. Agency scientists have concluded that there

does not appear to be a clear relationship between pyrethrins/pyrethroid exposure and asthma/allergies. The Agency will continue to evaluate new data on this issue as it becomes available.

### **17 Pyrethrins and Pyrethroids**

**<https://www.epa.gov/ingredients-used-pesticide-products/pyrethrins-and-pyrethroids>**

- Cumulative Risk Assessment – EPA determined that pyrethrins and pyrethroids share a common mechanism of action for consideration in a cumulative risk assessment. The October 2011 Pyrethrins/Pyrethroid Cumulative Risk Assessment indicates that exposures from the many current uses of pyrethrins and pyrethroid insecticides do not pose risk concerns for children or adults.
- This screening-level cumulative risk assessment is highly conservative, overestimating actual risk. That is, the assessment assumes that people are exposed to the highest levels of residues in food, water, and in their homes, all on the same day. Even with these conservative and protective assumptions, the assessment shows that cumulative risks for both children and adults are not of concern for the currently registered uses of pyrethrins/pyrethroid pesticides. Further, the assessment shows that there is sufficient room in the pyrethroid cumulative risk cup to support consideration of additional individual pyrethroid pesticide uses.

### **18 Franklin County Public Health's Integrated Mosquito Management Program**

Spray Decisions

- Review mosquito abundance each week
- Test for WNV
- Look at MIR (Min. Infection Rate)
- Review historical data
- Evaluate weather conditions/patterns
- Review State WNV activity
- Consider resources available

### **19 Spraying Frequency in Dublin**

### **20 Mosquito Management and Environmental Surveillance is Unique**

- Unlike many other human disease monitoring programs that use human cases to respond, WNV is mosquito driven and decisions are based on surveillance data.
- This enables us to put control measures into place to reduce the risk of disease transmission prior to human infection.

### **21 Consistency and Continuity in Franklin County**

- FCPH and its jurisdictional partners have created a comprehensive mosquito management program.
- 33 out of 40 jurisdictions participate in this uniform program – no variations except for additional RAMP testing.
- This consistency and continuity allows for better county-wide mosquito management and human disease prevention.

### **22 Things to Consider**

- We do allow people to opt out of spraying
  - Medical, organic gardening, bee keeping and other
- 2016 Do Not Spray Stats
  - 16 Dublin residents registered for Do Not Spray
  - 5 medical; 3 organic gardening; 7 apiaries and 1 no reason

### **23 More Things to Consider**

- Choosing not to allow adulticiding in Dublin
  - Lose one of the pillars of IPM

- Leaves no response to reduce adult disease carrying mosquitoes
- What about those that would want adult mosquito control?
- Create a very difficult communication and public relation situation
- Future participation with the county-wide program would be at risk

[End of Slides]

Mr. Broschart went on to express the need for universal control throughout the county and that adulticiding is an important component of the overall IPM. When each community signs on with FCPH, the program is implemented uniformly and that is detrimental to the program. However, he noted that ramp testing can be increased in certain areas when not cost prohibitive to the community. The FCPH program principles and best practices are passed down from CDC to the State to FCPH. It is important to not only plan for today, but also look at what would happen if the Zitka virus were ever to become established here. Adult mosquito control would be necessary. These are things to consider moving forward.

Mr. Broschart stated that FCPH contracts with Vector Disease Control, Inc (VDCI) who are subject matter experts and carry out the day to day operations of the program. They work all over the country and bring a level of understanding and expertise in these very technical areas. They are present to help address any questions.

### **Questions and Discussion**

Ms. Gawronski stated that with regard to the insecticide chemicals used for spraying she questioned the risk of groundwater contamination. Permethrin sticks to sediment and does not mix well with water so there really is no ground water contamination risk. Piperonyl Butoxide however had a moderate to low risk of groundwater contamination.

Mr. Broschart referred to the tiny microns that are being distributed in the small amount of pesticide being applied and noted that as it lands on foliage or the ground, it gets exposed to oxygen and ultra-violet light and quickly breaks down. It is in such small quantities and breaks down and dissipates. He understands the concern based on reading the label that if the product in its liquid state were to be spilled or directly applied into a body of water or stream, we would see damage. But a fine mist distributed over a large area, and the fact that they have the water areas mapped out to avoid spraying, when it lands on grounds or surfaces it will quickly dissipate.

Ms. O'Callaghan stated that FCPH handles much of the communications for the communities it serves, including complaints and questions from Dublin's residents, and asked Mr. Broschart what are some of the typical inquiries or feedback on the program. He responded that FCPH does track all service requests. The City used to administer its own mosquito control program and after partnering with FCPH, the City originally wanted to handle all of those questions. However, that was found to be an overwhelming staff time commitment so web and other publications on the program refers them to FCPH. Many residents are now calling FCPH directly, and requests are responded to with 24-48 hrs. Most complaints are about adult mosquitos and people getting bitten, and they request spraying. FCPH explains its protocol for spraying and will ask questions about whether the mosquitos are daytime or nighttime bitters because that detects a different habitat and mosquito. They will also get

complaints about people having stagnant water and such, but by mid-summer the complaints are about the adult mosquito population.

Ms. Carr referred to the two chemicals Mr. Broschart mentioned noting one was Suspend. She asked for more information about where and how often that particular chemical is used. Mr. Broschart explained that Suspend is used for barrier treatments. Unlike the trucks that spray, the Suspend is something applied in a specific area, general to foliage, and it has a longer residual of around two weeks or more. This is not used as often, but it is another tool for the right situation. Ms. Carr wanted to confirm that it is not used in areas of apiaries, and Mr. Broschart confirmed that it is not, as well as other specific conditions per the label.

Ms. Hall asked about Mr. Broschart's reference to the Do Not Spray request form and asked how that information is disseminated. Mr. Broschart stated that the Do Not Spray request form is on the FCPH web site Mosquito homepage. Ms. Mitzi Klein, Communication Director for FCPH, stated that the Do Not Spray information is not only on their web site, but also on the press releases that go out each time they spray. Notification is always given prior to any spray.

Ms. Lindsey Weisenauer, Sr. Public Information Officer for the City of Dublin, stated that she works very closely with Ms. Klein on communications and amplifying the message in Dublin utilizing all the social media networks and City web site, including eNews to those signed up for it. The Do Not Spray option is included in that message.

Ms. Hall also asked if there are any non-pesticide, natural alternatives that could be used in place of the pesticides. Mr. Broschart responded that when it comes to adult mosquito control, he is not aware of anything natural. They are bound to use those EPA-registered products. With larviciding they do use products that are bacteria based which is extremely effective and focuses on the gut of the mosquito. It does not affect other aquatic life. The same is applied to catch basins and does not affect aquatic life or other species. These products are very mosquito specific. There are some products that are garlic based but still have the same warning label, it is still toxic to bees, etc. The City of Columbus has begun using it and is trying to evaluate how effective it is on those very small control measures with the barrier. Mr. Broschart ask Dr. Dan Markowski with VDCI if he is aware of other products. Dr. Markowski stated that VDCI does do trials every year with different products manufacturers give them to demo. Products have been tested with rosemary, garlic, eucalyptus, lemon, etc., but you just don't see the same level of control people are going to want to see in these programs. Outside of those types of applications, other natural approaches might be bats, dragon flies, etc. Again, there are issues with the measure of their effectiveness and how you implement those types of things for an entire community. Outside of the adulticiding products, there is not a good way to get rid of adult mosquitos once they are flying around.

Ms. Carr referred to the workgroup that was focusing on the mosquito management program for the coming year and that there was discussion about adding a nuisance control element. Mr. Broschart had said that is not the typical criteria that FCPH would use as a stand-alone to decide to spray. She stated it was not clear whether it was intended to be included or not in the program. She expressed concern about the central area of Dublin that already had four sprayings and if there was potential that nuisance spraying could be added. Mr. Broschart responded that with the current contract and the proposed extension, nuisance mosquito control is not part of it. This is a public health driven program. What the workgroup talked about was do we start to look at nuisance control because last year we had

a tremendous amount of rain and the floodwater species it produced were hatches that may have been dormant for five or more years. FCPH was overwhelmed with over 500 complaints coming in in groups of 100 during the week so they were looking at what they could do to control the additional species that were hatching. FCPH had the ability through the vendor (VDCI) to address some of that by doing acres and acres of additional larviciding at zero cost, as well as starting additional control. They were finding a huge increase of mosquitos in the traps and different, very aggressive, mosquito species. Many don't carry disease, but they were biting day and night. That was the basis for the discussion. When looking ahead is this something that FCPH needs to start thinking about for mosquito management for the County. Mr. Broschart stated that he does not know where that discussion will lead and said it is why FCPH has requested the extra year on the contract so they can explore those issues. They want to make sure they get it right going into the next contract period and ensure they cover emerging issues. Nuisance species always comes up because people getting bit don't care what kind of mosquito it is. FCPH needs to know because the control is different for different species (i.e., daytime bitters or evening bitters). Ms. Carr asked if those measures were included in the numbers on the charts FCPH produced showing number of pools found and number of sprayings, etc. Mr. Broschart responded that they were included; there was nothing additional.

Ms. Gawronski referred to some of the research she had done and asked if there have been any cases of someone getting cancer or a pet dying or someone developing asthma or autism from the spraying FCPH/VDCI is doing. This is what she believes to be the residents' concern. Mr. Broschart responded stating that in looking at cause and effect, in cancers for instance, as those cases are reported to the State Health Department or even the local Health Department, they would look at a concentration of reported types of cases in a particular area. That may trigger some further study for a common factor. Mr. Broschart stated that in the 12 years he has been doing work with the County, he has not been made aware through any of the normal channels of disease reporting of any links. People who may come in more direct contact with spraying could experience irritation with their throat or lungs. However, that is not something they are exposed to every day in high quantities. That is where the safety measures come in with MSCS sheets. There is just not exposure to the quantity over a period of time.

Ms. Crandall asked if there were any other questions from the Commission or if there is a need for any additional information to be provided. Mr. Baker thanked everyone for all the detailed information and stated that she appreciates what both the City and County are doing toward public health issues. Ms. Gawronski agreed that the information presented addressed her questions. Ms. Bohman thanked staff for fulfilling all the requests for additional information from the last meeting for further consideration by CSAC.

Ms. Carr had one additional question regarding the communities in other parts of the state that just use the larvaciding and do not spray. She asked if they provide FCPH with any data on the number of cases of West Nile Virus or other that they encounter or if that information is available. Mr. Broschart responded that the State Health Department tracks all of the West Nile Virus cases in Ohio over the years, and it is broken down by county. This is reported on maps and tables on their web site. However, there is a surveillance factor to consider. In areas like Franklin Country where there is a very extensive mosquito management program, we find West Nile Virus in mosquitos trapped. However, the actual human cases may show up more in other areas where there is less surveillance. Mr. Broschart stated he could help put the City in contact with Dr. Richard Gary to look at the State Health Department's web site data which is generalized by county. Ms. Carr stated that this data would help

to complete the scenario by knowing what control measures each area takes and gauging the effectiveness through this data.

Mr. Broschart talked about the importance of balance in the program and that the adult mosquito control is an integral part of the program. You can always larvicide more, but there is a cost. You can also do more public outreach to get people to change their behavior. Ms. O'Callaghan agreed that the one tool that is most visible to the residents is the spraying. Communicating the other tools for public awareness is important.

Ms. Gawronski referred to FCPH's reference to Dr. Gary Arsti, Entomologist. When the residents were present at the October CSAC meeting they brought up Dr. Pimentel. Mr. Gawronski understands Entomologists studying mosquitos; however, they are not medical doctors, they are PhDs. She questioned this doctor talking about whether the chemicals are causing cancer when he is not a medical doctor. She just wanted to verify that the Entomologist are dealing with the mosquito population and killing mosquitos.

Ms. Katelyn Neil, Dublin resident, had pulled up the information on her laptop from the State Health Department web site on West Nile Virus cases. She stated that you can't necessarily make a direct correlation on the data especially based on one year.

Ms. Neil introduced herself and stated that she had distributed packets of additional data to Commission members and staff that she and Ms. Ashlie Mohan, Dublin resident, had collected. The documents are attached for reference.

- Referenced an article from Cincinnati Children's stating that the study links exposure to common pesticides with ADHD. It specifically addressed the EPA banning two common organophosphates, and then that ban led to the increased use of pyrethroids, which is what is used now by FCPH/VDCI. She said that although FCPH states that they use tiny amounts, the outcome still doesn't make sense. What she and Ms. Mohan have concluded from all their research is that by attempting to address one public health issue (West Nile Virus) it appears that we are actually creating another crisis. If the mission of FCPH/VDCI is really public health, she believes we really need to look deeper into this research.
- Stated that her research shows that the spraying has not been proved to stop West Nile Virus in humans. She referenced the chart showing WNV detection and sprayings and noted that the impacts of spraying on the number of human cases seems inconclusive. Hamilton County does not spray and does not report more cases of WNV in 2016.
- Questioned the real reason some areas don't spray. Ms. Neil referenced Mr. Broschart stating that we don't know that the spraying is causing asthma or other issues, but the document from Washington DC Department of Health specifically says we stopped spraying for several reasons. Pesticides residue lingers in the environment causing asthma, cancer and certain birth defects. On the MSDS sheets there were studies on the carcinogenic effects and they concluded that the effects were extremely low or non-existent because the rats did not develop cancer, but the mice did. She stated that Westerville where she previously lived sprayed for nuisance mosquito control and multiple residents she knew had animals with problems.

- Hamilton County Public Health stated their hesitancy to spray due to the public health risks.
- The packet also provides specific precautionary measures residents can take. In looking at other options to spraying, there is information about natural mosquito control and about choosing your pest control company.
- Ms. Neil stated that she and Ms. Mohan had also reached out to several physicians who had observed issues with children and pesticide exposure. The physicians were unable to attend tonight but encouraged them to present their research. Their research documents also include three letters from medical doctors and an open letter from concerned physicians and scientists regarding pesticide spraying.
- Ms. Neil referenced a community that put bat houses around their parks so that the bats were present to eat the mosquitos, and then the nuisance the bats present was controlled by using bat houses.
- Ms. Neil referenced an abstract of a study printed by PubMed.gov Insecticide resistance alleles in wetland and residential populations of the West Nile Virus vector Culex pipiens in New Jersey stating that the spraying is causing gene mutations in the mosquitos so they can survive. She compared it to something like MRSA or other stronger bacteria that we created with our synthetics. We may be creating an issue for future generations that they can't control, like West Nile, because of the mutation of the mosquitos. This puts a red flag on the use of synthetics.

Ms. Neil referred to their research document Effective Mosquito Control and noted their list of questions on the back that they had gathered from concerned citizens they had talked with about this topic. She stated there is a growing list of residents becoming more concerned. They don't necessarily want to stop mosquito management, but they want to handle it differently. This concluded her presentation.

Ms. Ashlie Mohan, Dublin resident, introduced herself and made reference to the various research she and Ms. Neil had compiled.

- Ms. Mohan stated her concern that her daughter and other kids in the area are having issues with ADHD and other things such as migraine headaches. Hamilton County has stopped spraying pesticides because of the study that links exposure to common pesticides with ADHD in boys especially and other issues with girls. She stated that many children's doctors say that the pesticides used are very bad even in a small amount. They bio-accumulate in the environment and being synthetic they do not break down. She had reached out to several doctors but they are throughout the USA and not available to attend the meeting, but some letters are included in the research that say pesticides are toxic to humans, wildlife and pets.
- Ms. Mohan stated that included in her materials is a plan Dublin can use (similar to Washington DC) to take care of mosquitos without pesticides. She stated that the City of Dublin lacks education and awareness on this topic.

Ms. Gawronski questions Ms. Mohan's statement about the lack of publication to promote awareness about mosquito control stating that she gets at least 10 emails a summer warning her about standing water in her yard and mosquito control. She wanted to ensure Ms. Mohan was aware of the various tools the City is utilizing for public awareness. Ms. Mohan said she is on Nextdoor. She has received information about spraying, but not larvaciding and prevention. Ms. Mohan stated that the City of Dublin can do mosquito control without spraying like other counties including Hamilton and Cuyahoga and the City of Columbus because residents have raised concerns.

Ms. Mohan referred to her list of questions on the back side of the Effective Mosquito Control reference document and completed her presentation.

Ms. O'Callaghan asked Ms. Neil and Ms. Mohan what format they would like the responses to their questions. Ms. Neil responded she would prefer typed responses for distribution to other interested residents. Dr. Markowski stated that he would be willing to respond now if preferred. It was determined that responses will be compiled into an electronic document for distribution. Ms. Bohman confirmed that Ms. O'Callaghan will be responsible for coordinating this effort.

Ms. Gawronski thanked Ms. Neil and Ms. Mohan for their extensive research on behalf of the residents.

Ms. Crandall asked if the Commission would like to further discuss the issue of whether the City of Dublin wants to make any adjustments to its existing program, or if there is additional information that the Commission needs to address the FCPH/VDCI Contract issue, etc. Ms. Gawronski suggested that the Commission will wait to see the answers to the list of questions posed and have an opportunity to digest all of the information presented tonight. Ms. Hall agreed. Ms. Carr requested that the Commission members receive the responses to the questions referenced as soon as possible to prepare for the December meeting. Ms. Bohman agreed that CSAC will consider the information and be prepared at the December 13, 2016 meeting to make a recommendation on the issue. Ms. Bohman thanked all involved for their research and participation.

Ms. Bohman stated that CSAC would now move on to the next topic and excused those who were present for the mosquito management topic.

#### **Staff Report - Park Naming Follow-up**

Mr. Earman stated that as a follow-up from the last meeting, he had prepared a draft memo for presentation to City Council on park naming. He distributed the draft memo he had compiled based on prior input from meeting discussions, minutes, etc. He suggested that CSAC members take time to review it and share any comments. In reviewing the content of the memo, Mr. Earman noted that City Council requested that staff solicit community nominations for park names, and then CSAC narrowed down to a final list. Another component was gathering a staff list of name suggestions, which is attached. Mr. Earman felt it best to combine these two lists into one as a presentation to City Council. The draft memo covers the park naming process, including some of the reasoning behind the naming concepts and some things that were intentionally avoided with names.

Suggested revisions to the memo:

- Paragraph 3 on the name selection criteria stating “a positive impression of the community” add “and has marketability” and also note “it should be a name that won’t be shortened or at least will keep its meaning”, and the desire to stay away from using “east” or “west”. To the criteria of “names already used in the City” add “and surrounding areas.” It was also suggested to include CSAC’s vote count with their list of names to show their preference in order.
- In reference to Appendix C – Name Submissions by City Staff, Ms. Bohman noted the extensive list and asked if would be worthwhile to go through a narrowing down process. Mr. Earman responded that staff had not yet discussed that, but there will likely be some sort of process to narrow it down. Ms. Bohman felt it could be overwhelming for Council to see all the name suggestions. Mr. Earman stated that he plans to submit the comprehensive lists (15-16 pages) of all names that were submitted through the various sources, as well as the narrowed down lists from CSAC and staff. It was suggested that the “Drain the Swamp Park” name suggestion be removed from the staff list.

Mr. Earman noted that in addition to the memo including a list of CSAC’s recommended names and a list of staff’s recommended names, it also acknowledge Council’s discretion in considering other names that were submitted to formally name the new park.

City Council will review the basic plan for the park on December 5, so that would be a good time to take this forward. Mr. Earman noted his concern that once everyone starts referencing a park by a name it tends to stick, so it would be beneficial to get the formal park name determined even though there will not be park development or signage for several years.

Mr. Earman asked if CSAC preferred to have a representatives at the December 5 City Council meeting to present on park naming. Ms. Bohman and Ms. Gawronski both plan to attend representing CSAC with Ms. Bohman doing the presentation to Council. Mr. Earman agreed he will introduce the topic and turn it over to Ms. Bohman. He will edit the draft memo based on the input from CSAC and get it in the Council Packet.

## **VI. Next Meeting – December 13, 2016**

## **VII. Adjournment**

There being no further business, the meeting was adjourned at 8:31 p.m.

Respectfully Submitted by:



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Tamra Moore, Administrative Support III